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Real-World Indicators and the Coverage of Immigration and the Integration of Minorities in Dutch Newspapers

■ *Rens Vliegenthart and Hajo G. Boomgaarden*

ABSTRACT

■ An intriguing question in communication science deals with factors determining the intensity of news reporting about certain issues. The study investigates whether the prominence of immigration and the integration of minorities in news coverage reflects real-world developments or whether it is dependent on (political) key events. The authors compare the direct effects of real-world developments and key events in Dutch newspapers for the period 1991–2002 on the prominence of issue coverage. Results indicate that events have a more direct impact on the attention given to immigration and the integration of minorities in the news. The authors furthermore find that international events have a direct, but temporary effect, while most institutional national events influence media attention permanently. ■

Key Words immigration, integration of minorities, key events, the Netherlands, newspaper coverage, real-world developments

Introduction

Immigration and the integration of ethnic minorities are important political issues in a growing number of countries. News reporting on the

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integration of Muslim minorities has attracted scholarly attention (Nacos and Torres-Reyna, 2003; Poole and Richardson, 2006). During recent years, international events like the 9/11 attacks and the subsequent war on terror have led to increased attention on and problematization of immigration and the integration of ethnic minorities in media coverage (Nacos and Torres-Reyna, 2003). Few studies, however, demonstrate how news coverage is affected by such key events as opposed to socioeconomic real-world developments. The present study addresses this question and looks at extra-media influences on media coverage. More specifically, we consider real-world factors that determine the *prominence* of media coverage of immigration and integration. We investigate whether issue prominence in news reporting largely reflects *real-world developments*, such as the level of immigration and the number of asylum applicants, or whether it is dependent on social or political *key events*, like 9/11 or parliamentary elections. Furthermore, we explore the similarities and differences in the type of effects caused by different types of events.

By considering the direct impact of real-world developments vs key events and by spelling out the diverse impacts key events can potentially have, we contribute to the general understanding of news production processes. We consider news coverage of immigration and the integration of minorities in Dutch newspapers over the period from May 1991 to December 2002. This considerably long research period – more than 11 years – and the application of advanced time series techniques allow assessing the nature of the relationship between real-world cues and media coverage convincingly. The Netherlands is regarded as an excellent case to study relationships between media, politics and society (Aarts and Semetko, 2003). During the 1990s, immigration and the integration of minorities were modestly debated, while since, especially during 2001 and 2002, they have been the focus of great political and public attention (Sniderman and Hagendoorn, 2007).

News content as a reflection of reality?

The present study considers whether news content reflects real-world factors, and if so, whether *real-world developments* or immigration-related *events* are more important in shaping the prominence of issues to do with immigration and integration of minorities in the news. The average news media consumer gets to know merely a fraction of all that is happening on any given day around the globe. The world is too complex to be objectively and fully represented, which leads to an indispensable selection process on the part of the media. Journalists, editors, news agencies and institutional arrangements function as gatekeepers in this selection process (Shoemaker

and Reese, 1996). Besides journalists' personality and social factors, time constraints and the availability of materials are important aspects for the gatekeeping process (McQuail, 1992).

News values determine why some but not other events make it into the news. Galtung and Ruge (1965) note that all real-world episodes get attributed a news value, based on the presence of certain news factors, indicating the chance of that event getting into the news.¹ Though criticized on methodological grounds and for its focus on events without taking larger developments into account (Rosengren, 1974), Galtung and Ruge's study still provides a starting point for most research regarding the relationship between 'reality' and news reporting (for other conceptualizations of news values, see Gans, 1980; Hetherington, 1985; Herbert, 2000; Harcup and O'Neill, 2001).

The question then is what aspect of reality is described and how does that very reality influence the media's reality? A relevant distinction is whether news coverage of certain issues is led by socioeconomic real-world developments like, for instance, economic growth or crime rates, or by (expected or unexpected) key events, such as elections or terrorist attacks. Though the influences of real-world developments and key events have been the object of empirical investigation, no study has integrated both into a single design and simultaneously assessed their impact and compared their effects in a longitudinal perspective.

The relationship between real-world developments and the news

Due to the wide range of available indicators, the relationship between real-world developments and media coverage is commonly investigated in the economic realm. Since similar selection processes are likely to be at stake here, a discussion of the outcomes of these studies is warranted. They show mixed results. Mosley (1984) compares the levels of the official statistics for unemployment, inflation and the balance of payments with the levels of the same indicators reported in UK newspapers over a period of 21 years. He shows that the reported values frequently differ from the official values and that economic news reporting is more intensive at times of bad economic conditions. A content analysis of US television news between 1982 and 1987 largely confirms these results (Smith, 1988).

Goidel and Langley (1995) analyse the amount and the tone of economic news reporting in *The New York Times* between 1981 and 1992 and conclude that news coverage of the economy reflects changes in economic conditions. These results are in line with Behr and Iyengar (1985), who find a considerable overlap between television news coverage and real-world

cues for the issues of unemployment and inflation. They conclude that news coverage provides at least a partial reflection of the economic state of the nation (for similar results, see also Sanders et al., 1993; Wu et al., 2002).

This moderate relationship between real-world developments and media coverage is confirmed by Lubbers et al. (1998) in relation to ethnic minorities in the news. Comparing the amount of news on ethnic minorities in Dutch newspapers and the number of asylum applications and residence permits granted, the authors find that media attention paid to ethnic minorities is associated with the trend in residence permits only and unrelated to asylum applications. They show that when the number of residence permits went up, news coverage of ethnic minorities increased as well. In a similar vein, Brosius and Esser (1995) find that news coverage of migration issues to a certain degree followed coverage of violent attacks against foreigners in Germany.²

Results from these studies are in line with Dearing and Rogers' (1996) conclusion of their extensive review of agenda-setting studies: real-world indicators are sometimes a necessary but certainly not a sufficient explanation of media agenda-setting.³ Though their study is limited in terms of time period and data use, Lubbers et al. (1998) provide some indication that for issues related to ethnic minorities this is indeed true. Results of studies both concerning economic issues and ethnic minorities might be explained by the fact that negativism can be regarded as an important news value (Galtung and Ruge, 1965). This becomes apparent in the fact that in times of recession news reporting about the economy increases (Mosley, 1984), while news regarding ethnic minorities is usually negative (Lubbers et al., 1998). For the present study, which takes into account both the level of immigration and the number of asylum applicants, the first hypothesis is as follows:

H1: High levels of immigration and numbers of asylum applications increase the prominence of news reporting about immigration and the integration of minorities.

The relationship between key events and the news

According to Vasterman (2005: 513–14) a key event can be a genuine event, independent of news coverage, but can also be an incident within the media arena: for example, an interview or a disclosure by investigative journalists. Few studies consider the impact of key events on news reporting and whether events do affect the prominence of issue coverage (Kepplinger, 1992; Brosius and Kepplinger, 1990; Daschmann and

Brosius, 1999). Kepplinger and Habermeier (1995), for instance, find that certain events, like earthquakes and traffic accidents, lead to more coverage of similar events in the period following, even when the number of incidents has decreased compared to the period before the key event took place. Most of this research, however, employs a rather narrow conception of key events by looking at incidents like natural disasters or acts of violence. Furthermore, these studies only look at short-term effects, taking into account the first weeks after the occurrence of an event.

Vasterman's (2005) research on media-hypes yields similar outcomes. He demonstrates that the key events in his study – acts of violence that are labelled 'senseless' by public officials – influence the prominence of the issue of violence for a longer period of time. However, after a while the effect wears off and attention to the issue returns to its initial levels. Brosius and Eps (1995) find comparable results when studying extreme-right violence in Germany. Taking four high-impact events in terms of number of victims and degree of violence as a starting point, they conclude that similar events are more likely to be covered than other, unrelated events. They suggest that these events serve as *prototypes* for journalists. These prototypes are concrete images that represent events' abstract nature or schemata and transform them into concrete images of objects, persons and incidents. When events are similar to the high-impact prototype, they are more likely to be covered (see also Bennett and Lawrence, 1995).

Based on this review, one could, for example, expect that after 9/11 events that have some similar characteristics are more likely to receive coverage and that overall attention to terrorism increases also in the longer term. Furthermore, a form of 'framing' might take place: journalists will focus on the characteristics of a certain event that are similar to those of previous newsworthy events. Journalists follow certain preconstructed frames of reference in the coverage of events and these frames of reference might well be influenced by earlier events (Noelle-Neumann and Mathes, 1987: 398).

Using a slightly different terminology, Zillmann and Brosius (2000) discuss *exemplars*, those events that are used to exemplify a larger population of events that have common characteristics. Exemplification theory suggests that journalists' choices are strongly event-driven and that they are more likely to present examples of engaging events than abstract figures.

In this article, we use a broad conception of key events and make a distinction between *unpremeditated events*, *institutional events* and *deliberative events*. Unpremeditated events are most similar to those events that are taken into account in the previous research discussed earlier. Wars, for instance, trigger immigration of refugees, as well as public debates on how to handle that situation. Thereby an unanticipated international

event can shape news coverage about domestic issues such as integration of minorities. However, key events can also have a less abrupt or unexpected character and be embedded in the institutional system of a country ('*institutional events*'). Parliamentary elections, for example, can change the formal balance of power between various political parties within a democracy. Such changes are likely to be, at least partly, reflected in the media agenda (Kleinnijenhuis and Rietberg, 1995; Kleinnijenhuis, 2003; Walgrave and van Aelst, 2006).⁴ Finally, a third type of key event that might impact issue attention is political and societal actors trying to influence public debate on a given issue (Huckins, 1999). We focus on unconventional or new considerations with regard to immigration and integration, and classify these attempts as *deliberative events*.

We expect key events to change media attention for issues. Due to the prototype recognition of journalists, attention to events similar to the prototype increases and thereby indirectly the prominence of the more general issue at stake goes up. In extreme cases, this might lead to a media-hype (Vasterman, 2005). Moreover, institutionalized events can change the political agenda, which influences the media agenda. These considerations lead to the following hypothesis:

H2: Key events related to immigration and integration increase the prominence of news reporting about immigration and integration of minorities.

Real-world developments and key events are not entirely endogenous. The occurrence of certain events might influence real-world developments, like wars triggering asylum applications from certain regions. On the other hand, real-world developments (like high numbers of immigration) might create a context in which deliberative events are more likely to be successful.⁵ Therefore, it is hard to disentangle the indirect effects of either, but we are able to compare the direct effects of real-world developments with those of key events. Based on the moderate influence of real-world developments suggested by the studies discussed previously and the importance of key events, we expect that the *direct* effects of key events will override the importance of *direct* effects of real-world indicators. Therefore, our third hypothesis is:

H3: Key events concerning immigration and integration of minorities more strongly influence the intensity of reporting on this issue than do extra-media real-world developments.

The Dutch case

Immigration and integration were visible issues on the political and media agenda in the Netherlands over the entire research period. Though both

governmental advisory bodies and politicians acknowledged problems with the integration of ethnic minorities as early as the late 1980s, Dutch integration policy and the 'multicultural society' have been widely regarded as successful and as an example for neighbouring countries (WRR, 1989; Zuwanderungskommission, 2001; Koopmans, 2002). There were some opposing opinions, however (e.g. Bolkestein, 1991). Extreme-right political parties gained seats in the national parliament during the 1989 and 1994 general elections (Kleinnijenhuis et al., 1995) and anti-immigration sentiment was present among sections of the Dutch population during this period (Verberk et al., 2002). Finally, the problems of the Dutch government to establish effective policies and procedures to deal with comparably high numbers of asylum seekers, particularly from former Yugoslavia, attracted much media attention in the mid-1990s.

Though the debate surrounding immigration and the integration of minorities was present during the 1990s (especially during election times) (van Holsteyn and Mudde, 2000), it is said to have increased enormously with the emergence of populist politician Pim Fortuyn in the 2002 election campaign and with the 9/11 attacks. Fortuyn succeeded in mobilizing a substantial part of the electorate by, among others, attacking the 'backward Islamic culture and Dutch integration policies' (*De Volkskrant*, 2002, see also Kleinnijenhuis et al., 2003). After his assassination a week before election day, his party, Lijst Pim Fortuyn (LPF), gained 26 out of 150 seats in parliament. Due to disputes within the party, the LPF did not retain this support and after only a few months re-elections took place, in which the party lost 18 of its 26 seats. Since then, several parliamentarians, mainly from the right-wing liberal party Volkspartij voor Vrijheid en Democratie (VVD), have been calling for elaborate measures against so-called Muslim fundamentalism.

Method

The dependent variable in our study is the prominence of immigration and integration in newspaper coverage. As independent variables we employ the level of immigration, the number of asylum applications, the interaction between immigration and asylum applications, and various key events.

Prominence of immigration and integration news coverage

To obtain data on the intensity of news reporting about immigration and integration of minorities, we conducted a computer-assisted content analysis of the five most popular Dutch national newspapers (Bakker and Scholten, 2003):

NRC Handelsblad (1991–2002), *Algemeen Dagblad* (1992–2002), *De Volkskrant* (1995–2002), *Trouw* (1992–2002) and *De Telegraaf* (1998–2002). These newspapers are available digitally. Articles were selected using an extensive search string, containing words and word co-occurrences indicating relevant articles.⁶ This search resulted in 157,968 articles for the entire period.

The prominence of coverage is operationalized by calculating a visibility-score per article. We assume this visibility to be sublinearly dependent (in this case $^2\log$) on the frequency with which an elaborate set of key words are mentioned in the article (Manning and Schütze, 2002). The score is weighted by the importance fp of an article (news on the front page is weighted twice as heavily as news on other pages), and the position of the key words within the article (sublinearly, where the first occurrence in the headline is scored as 3 and in the body of the text as 1). Finally, the visibility of an article is assumed to be proportional to the circulation number of the newspaper $circ(a)$, which we derived for each of the newspapers on a yearly basis (e.g. Bakker and Scholten, 2003). Prominence is computed as:

$$v(issue)\alpha \sum_{a \in articles} v(issue_a) = \sum_{a \in articles} {}^2\log(8hf_{head} + 2hf_{body}).circ(a).fp$$

Where $v(issue)$ is the prominence of the issue, hf_{head} the number of key words in the headline, hf_{body} the number of key words in the body of the article. $Circ(a)$ is the circulation figure of the newspaper in which the article is published divided by the mean circulation of the newspapers included in our analyses and fp the article prominence, which has a value of 2 if the article is on the front page and 1 otherwise.

The scores per article are aggregated, resulting in monthly visibility scores for the prominence of the immigration and integration of minorities issue. For the months in which, because of digital unavailability, not all newspapers could be analysed, the scores are weighted.

Immigration and asylum applications

The level of immigration is the monthly number of people that moved to the Netherlands. The number of asylum applicants is the monthly number of people registering for asylum in the Netherlands. Data are available from the Dutch governmental statistical institute CBS (Centraal Bureau voor de Statistiek) from May 1991 onwards.

Key events

We use dummy variables to capture the effects of key events. Several events are expected to be influential; their selection, however, deserves special attention.

One does not know in advance which events might affect the intensity of news coverage, and looking at the news coverage itself for possibly relevant events can be considered as selecting independent variables because of fluctuations in the dependent variable, which is methodologically inappropriate.⁷ Therefore, we choose to select our events based on a distinction in types of events and on recent scientific literature (Koopmans, 2002; Kleinnijenhuis et al., 2003) on the debate surrounding immigration and integration in the Netherlands. We distinguish three types of key events that potentially determine the prominence of reporting about immigration and integration of minorities. These distinctions are of an exploratory kind and their value is discussed subsequently.

The first type encompasses *institutional events*. Both during the election campaign and as a result of the election outcomes, the attention to immigration and integration might fluctuate, either because of the extent that it is a politically debated issue during the campaign or because of an increase or decrease in the support for right-wing political parties, which are generally regarded as closely linked to these issues (van der Brug, 2004). In our research period, we distinguish the parliamentary elections of 1994, 1998 and 2002. The 1994 election resulted in a modest victory for the extreme-right party Centrum Democraten (CD). The liberal-right Volkspartij voor Vrijheid en Democratie (VVD) booked electoral gains in 1998. In 2002, the populist anti-immigration party Lijst Pim Fortuyn (LPF) entered government in a coalition with the VVD and the Christian-Democrats (CDA). We expect the elections of 1998 and 2002 to positively and permanently influence attention to the issue. After both elections the political power-base of the government shifted clearly to the right. With such a shift, the involvement of government in immigration and integration policies is likely to increase. As Kleinnijenhuis and Rietberg (1995) and Kleinnijenhuis (2003) show, Dutch media outlets tend to follow politics and are therefore likely to pick up this shift, resulting in increased attention paid to immigration and integration. Due to long periods of coalition formation, however, it may take several months before this increase takes place. For the 1994 election, we also anticipate an increase in media attention to immigration and integration of minorities during or shortly after the election campaign, but this effect is likely to wear off quickly. In this election, the extreme-right CD increased their number of seats from one to three, which might have caused a slight increase in attention to the party and its issues, but since this victory did not mean a fundamental change in political power relations, it is unlikely that an increase in the prominence of the issue on the media agenda is permanent. Another reason to expect a positive effect during the campaign relates to the fact that the VVD made the immigration issue central in its 1994 election campaign (Kleinnijenhuis et al., 1995).

The second type of key events encompasses *unpremeditated events*. During the 1990s, the war in former Yugoslavia is of particular relevance. We take into account two key events: the occupation of Srebrenica by the Serbs despite the presence of Dutch UN soldiers in July 1995 and the NATO attacks on Kosovo in March 1999. Also 9/11 needs to be considered, since it dramatically stirred public debate about the integration of Muslim minorities in the Netherlands (Kleinnijenhuis et al., 2003) and generally sparked (negative) media coverage of Muslims (Hutcheson et al., 2004). We expect unpremeditated events to lead to an abrupt increase in attention to the issue, since the event and the related problem diagnosis is likely to attract immediate media attention. In line with the findings of Vasterman (2005) on media-hypes caused by key events, we expect this increase to be temporary, but to wear off slowly.

Our third type is *deliberative events*. Following Koopmans (2002) and Kleinnijenhuis et al. (2003), we distinguish three incidents. First, in September 1991, in a speech during the Liberal International Conference, Frits Bolkestein, former leader of the VVD, discussed potential problems with the multicultural society, thereby breaking a taboo in Dutch society. Second, we identify the publication of an influential newspaper article by publicist Paul Scheffer on the 'multicultural fiasco', written in January 2000. Finally, we include the interview with Pim Fortuyn in February 2002, in which he heavily criticized the Islamic culture. Deliberative events can affect media attention in numerous ways. Here, we take into account only those that are mentioned in the literature as having influenced the debate substantially. If these events do have a permanent effect, however, we would expect this effect to be on the way in which an issue is discussed rather than on the issue *prominence*. For issue prominence, we expect only temporary effects: controversial statements increase the general discourse around an issue for some time and though new views might be adopted by media or other actors, we have no reason to assume that this will lead to a permanent increase in issue attention. Since the deliberative event is directly reported in media coverage and it is likely to provoke immediate reaction, the influence on issue attention takes place abruptly. In some instances, however, it may take some time before the debate really 'takes off' and increases issue attention significantly.

Analysis

For our analysis we rely on Box-Jenkins ARIMA modelling (Enders, 2004). This econometric method for times series analysis starts with modelling a series by using its own past (univariate ARIMA model). Therefore, autoregressive

Table 1 Diagnostic characteristics of the variables, period May 1991–December 2002

<i>Variable</i>	<i>E_p-test for normality original series</i>	<i>E_p-test for normality log-transformed series</i>	<i>Dickey – Fuller test log-transformed series</i>	<i>Dickey – Fuller test log-transformed, differenced series</i>
News on immigration	102.00	1.45‡	–3.16	–10.79*
Immigration	12.22	1.43‡	–0.98	–3.93*
Number of asylum seekers	10.56	5.16‡	–2.14	–5.31*

Note: ‡ indicates normality ($p < .05$);

* indicates absence of unit root ($p < .01$).

orders (AR), which represent the influence of previous values of the series on the current value, and moving averages (MA), which represent the influence of residuals from previous values on the current value, are used.

To ensure normality of our variables, we tested for skewness (whether the variable is asymmetrically distributed around its mean) and kurtosis (measuring the peakedness of the distribution) for each of our interval variables in Doornik and Hanssen's (1994) combined E_p test. The results presented in Table 1 suggest that we have to reject the null hypothesis of a normal distribution for each of our variables. We decided to take the natural log of these variables, for which the test indicates a normal distribution (see Table 1). Though such a log-transformation changes the nature of the series (it especially 'flattens' the peaks in the variables) and results in estimated effect sizes that are less straightforward to interpret, it is an often-applied strategy when dealing with this kind of data. Research has shown that it is nevertheless possible to assess effects of independent variables on the dependent variable (e.g. Clarke et al., 1994).

Furthermore, a Box–Jenkins analysis can only be processed if all variables in the model have stationary means and variances. To test mean stationarity and thus the absence of trends in the data, we use the augmented Dickey–Fuller test. This test can be used to investigate the presence of a unit root, meaning that the coefficient of any of the lagged values of the series is not significantly larger than 1.0. If this is the case, the series is said to be non-stationary and needs to be differenced. The results suggest that for all of our interval variables the null hypothesis of the absence of a unit root needs to be rejected (Table 1). It is then also necessary to difference the series

that indicate the key events.⁸ The Dickey–Fuller tests on the differenced variables suggest that they are stationary (Table 1).

The autocorrelation and partial autocorrelation functions for the transformed series suggest negative moving averages at lags 1 and 2. These negative moving averages indicate that the error terms of the previous two lags have a negative impact on the visibility score, which means that after the occurrence of a high prominence score (and thus, for example, a newsworthy event, which has a large error term in a univariate model) the series drops off sooner than in a model that includes no moving averages. We test whether autocorrelation in the residuals is absent, which is a prerequisite for adding endogenous variables to the model (see Table 1), using the Ljung–Box's *Q* statistic. In our case, the test fails to reject the null hypothesis of autocorrelation at any lag, indicating that the model is well specified.

Finally, if the magnitude of change in our dependent variable is time dependent and the variance is serially correlated (autoregressive conditional heteroscedasticity), a model from the ARCH family would be more appropriate to analyse the data with than an ARIMA model. To test this, we applied the Lagrange Multiplier test (Engle, 1982) and tested autocorrelation in the squared residuals. The Ljung–Box *Q* test suggests no autocorrelation in these squared residuals (see Table 1) and the Lagrange Multiplier test indicates no ARCH errors at any lag, indicating the absence of autoregressive conditional heteroscedasticity and validating our choice for an ARIMA model instead of an ARCH model.

After establishing the correct univariate specification, we analyse three models: one encompassing the variables indicating real-world developments, the second encompassing the events and the third encompassing both. This allows looking at the explanatory power of the different models (residuals means square) as well as their goodness of fit (Akaike info criterion). Based on our predictions about the nature of the influence of the various events, we allow the lag of the effects of parliamentary elections to range between minus one and three months. For the effect of international events, we allow a maximum lag of one month, for deliberative events a maximum of two months. While we model the effects of real-world developments as linear, the impact of key events can take several forms, as illustrated in Figure 1. Effects can occur gradually as well as abruptly and can be permanent, temporary or gradually declining. In all cases, an impact parameter will be distinguished (in Figure 1 this is approximately 0.5) that indicates the maximum magnitude of the effect. Furthermore, in the case of gradual effects an adjustment parameter will be calculated, indicating at which speed this magnitude is reached or disappears.⁹

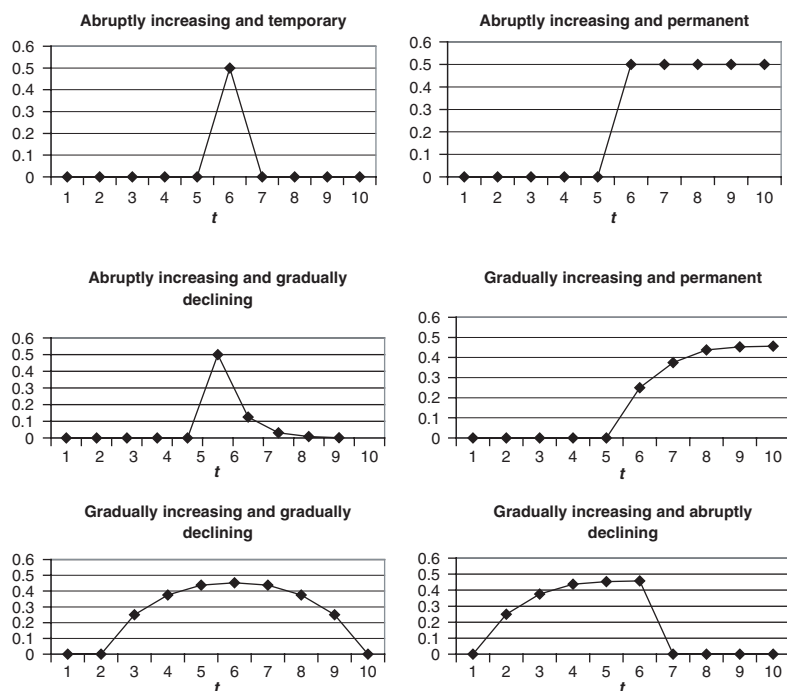


Figure 1 Different types of interventions

Note: In all cases the impact parameter is around 0.5. In the case of gradual interventions, the adjustment parameter is 0.25.

Real-world developments vs events

Before turning to the statistical analyses, we briefly focus on the dynamics of the time series. Immigration levels were relatively high in the early 1990s, while decreasing from 1994 onwards. From 1996 to 2001, immigration rose steadily, then decreased once more. The number of asylum applicants shows a somewhat different pattern, with peaks in 1994 and 1999, while decreasing steadily thereafter. The prominence of coverage of immigration and the integration of minorities increased throughout the years. Immigration had a relatively low prominence until late 1997 (see also Lubbers et al., 1998; Semetko and Valkenburg, 1999). Thereafter, attention increased moderately until 2001, after which there is a rather steep incline with considerable fluctuation in 2001/2.

We now turn to our first model, testing the impact of the immigration level and the number of asylum applicants (see Table 2, Model A). The analysis shows no influence of the number of asylum applicants on news coverage. The immigration level has only a modest influence at a

Table 2 Influence of social-economic real-world developments and key events on news on immigration and integration; period May 1991–December 2002

<i>Predictor</i>	<i>Model A</i>		<i>Model B</i>		<i>Model C</i>	
	<i>Coefficient</i>	<i>t-value</i>	<i>Coefficient</i>	<i>t-value</i>	<i>Coefficient</i>	<i>t-value</i>
Moving average (<i>t</i> -1)	-.42***	-4.96	-.47***	-5.43	-.48***	-5.50
Moving average (<i>t</i> -2)	-.22**	-2.53	-.26***	-2.91	-.26***	-2.84
Immigration (<i>t</i> -6)	.25**	2.03	†		.23**	1.99
Bolkestein (<i>t</i> -1) ^b	†		.53***	3.52	.50***	3.35
Elections 1994 ^a	†		-.42***	-2.39	-.43**	-2.44
Srebrenica ^a	†		.32**	1.83	.36**	2.05
Elections 1998 (<i>t</i> -3) ^b	†		.28**	1.86	.26**	1.76
Kosovo (<i>t</i> -1) ^a	†		.31**	1.75	.31**	1.76
9/11 ^b	†		.77***	4.10	.79***	4.22
δ	†		.77***	6.11	.75***	5.72
Interview Fortuyn (<i>t</i> -2) ^a	†		.24*	1.36	.23*	1.32
Election 2002 (<i>t</i> -3) ^b	†		.44***	2.47	.38**	2.14
RMS	7.00		5.19		5.03	
Akaike info criterion	-2.95		-3.13		-3.15	
Ljung–Box Q (30)	33.40‡		26.25‡		27.48‡	
N	139		139		139	

Note: Non-significant variables are left out of the analysis: number of asylum seekers; interaction immigration * asylum seekers; Scheffer's 'multicultural fiasco'.

* $p < .10$; ** $p < .05$; *** $p < .01$ (one-tailed);

† variable not included in model;

‡ indicates absence of correlation in residuals ($p < .05$);

^aeffect is abrupt and temporary;

^beffect is abrupt and permanent;

^ceffect is temporary and gradually declining.

long lag of six months. Also, the interaction of immigration and number of asylum seekers yields no significant effect. Real-world developments in immigration and asylum applications do not have a great impact on the prominence of immigration and integration of minorities in the news. The second model (Table 2, Model B) only includes the various key events. All events, except for the publication of Scheffer's 'multicultural fiasco' article, have a significant impact, though different in strength and form. We first turn to the *institutional events*. The 1994 parliamentary election, in which the extreme-right CD Party had electoral success, has a remarkable negative impact, though only lasting for one month. This effect occurred during the same month as the election and it might well reflect a decrease in attention after a campaign in which the issue received considerable attention (Kleinnijenhuis et al., 1995). As we expected, the parliamentary elections of both 1998 and 2002 yield a positive and lasting effect. With the VVD in 1998 and the LPF in 2002, right-wing parties gained electoral support, which arguably enabled them to get their issues – among which were immigration and integration – onto the media agenda. This took some time, however, as suggested by lags of three months in both cases. As argued before, this is possibly caused by the fact that in both instances the winning parties entered coalition negotiations after the election and only after some time entered government.

Second, and confirming our expectations, the *unpremeditated events* all have a temporal influence on issue prominence. The two key events associated with the war in former Yugoslavia have a moderate impact at small lags. This impact, however, does not last longer than one month. The attacks of 9/11 have a strong impact, causing a 115 percent increase in issue attention,¹⁰ which declines only slowly over time. Third, the consequences of *deliberative events* differ. The attempts of both Bolkestein (1991) and Fortuyn to influence the public discourse were successful. The effect of Bolkestein's speech was quite large and permanent, while the effect of the interview with Fortuyn was modest and temporary with a lag of two months. Scheffer did not succeed in changing the amount of attention to the issue. The explanatory power of Model B exceeds that of Model A, with the residual means square (RMS) being 7.00 and 5.19, respectively. Also the goodness of fit of the second model is better, indicated by a lower Akaike info criterion (AIC) of -3.13 compared to -2.95.

Finally, we test the model including both real-world developments and key events (Table 2, Model C). Results from the previous models remain unchanged with all independent variables having roughly the same impact. Taking both real-world developments and events into account results in the best model in terms of explanatory power (RMS is 5.03) and

Table 3 A classification of the effects of various key events

<i>Characteristic</i>	<i>Examples</i>	<i>Type of effect</i>
<i>Institutional events</i>		
Election campaign: gains small extreme-right party	Elections 1994	Negative, temporary, direct
Election campaign: gains larger right party (re-)entering government	Elections 1998, elections 2002	Positive, permanent, after few months
<i>Unpremeditated events</i>		
International crises	Srebrenica, Kosovo, 9/11	Positive, temporary, direct (sometimes pulse decay)
<i>Deliberative events</i>		
Prominent actors trying to influence public debate	Bolkestein, Scheffer, Fortuyn	Various

similar goodness of fit compared to the event model (AIC is -3.15). Obviously, however, key events have a much larger direct impact.

Towards a typology of event effects

We distinguished three types of key events: institutional, unpremeditated and deliberate events. For each type of event, Table 3 provides a description of the effect in terms of direction, duration and timing of occurrence.

In general, the effects do not occur gradually, but abruptly, though this might well be after a few months. However, we should use the word ‘abrupt’ with some caution when dealing with monthly data: it might well be that within a month there is some gradual increase in intensity, which cannot be captured here.

Some remarkable differences can be observed when looking at the various types of event effects. In the case of institutional events, we see a somewhat mixed picture. As noted earlier, the elections we chose were very different in terms of the course of the campaign as well as in outcome. In the case of the 1994 election, the extreme-right CD gained several seats in parliament, but the party and its issues were largely neglected by the other parties (Kleinnijenhuis et al., 1995), and apparently also, the news media avoided covering these issues in the month after the election. However, when more moderate right-wing parties are successful and enter government, they seem to be capable of influencing media attention towards immigration and integration of minorities permanently, probably by making these issues more important in policy-making.

Overall, the effects of unpremeditated events occur directly and are, as expected, temporary, even the effect of 9/11, though in that case the effect declines only at a very slow rate. This type of event is not capable of permanently changing the selection and prototyping processes of journalists.

The success of public actors in getting (permanent) attention for their opinions in the media depends on all kind of factors and dynamics (Koopmans, 2004), which makes it very difficult to explain why some messages penetrate the public debate while others do not. In our specific case, the successes of both Bolkestein and Fortuyn are often attributed to their charismatic performance (Kleinnijenhuis et al., 2003). In general, the political and societal attention to their statements might have led to a change in journalists' prototypes (Brosius and Eps, 1995), creating opportunities for other actors to get media coverage of the same issue.

Conclusion

The present study investigates the influence of several real-world developments and key events on newspapers' attention towards immigration and integration of minorities. Both the long period under investigation and the application of advanced time series analysis have contributed to the reliability of our results. They show a limited direct influence of real-world developments, while events generally have a stronger direct impact. The results suggest that key events are more likely to pass the news threshold and might indeed function as journalistic prototypes for longer periods of time. Furthermore, it is shown that variation in the type and the duration of effects of various events can be partly attributed to specific event characteristics, resulting in a preliminary typology of event effects. Unpremeditated events have an abrupt and temporary or slowly declining impact, while effects of most institutional events take longer to capitalize, but have a permanent nature. The influence of deliberative events, in which prominent actors try to influence the public debate, is harder to predict and characteristics of both the source and the message are likely to determine the outcome in terms of increased issue attention. The question of how these characteristics and the way they interact influence attention to the broader issue is an intriguing and interesting one, which deserves further research.

We have explored the relationship between real-world factors and issue coverage intensity and have provided clues concerning the different effects of key events and real-world developments. The study has some shortcomings in terms of data used: other (unavailable) trend data like crime and unemployment among immigrants could influence the visibility of immigration

and integration. Another concern is the dependent variable: the study looks only at the prominence of immigration and minorities' integration in media coverage, and in future research it would be beneficial to make finer distinctions in terms of different aspects of news coverage (framing) and evaluative elements. Another interesting point that remains largely unaddressed here is which (deliberative) events make it into the news and have considerable impact on news coverage. Here, we selected those events that other scholars have regarded as important. To be able to address this question more elaborately, one needs to have an overview of all deliberative attempts by certain groups of actors. Here, for example, press releases issued by political parties and societal organizations might offer an opportunity to have at least a more elaborate selection of deliberative attempts. Finally and relatedly, to include a measure of the political agenda and possible other societal agendas would enrich our understanding of how media coverage comes about and might be more suitable to capture the effects of heightened issue attention during election times (now captured by institutional events) or deliberative attempts (now captured by deliberative events). Furthermore, future research should move beyond the immigration and integration issue to test whether the patterns and relationships found here also hold for other issues and also consider other news outlets like television.

Notes

1. Galtung and Ruge identify frequency, intensity, unambiguity, meaningfulness/cultural closeness, consonance, continuity, composition, negativity, some reference to elite nations or elite persons and personalization as important factors.
2. For the most part, however, their escalation model and empirical findings point to an influence of coverage of violent acts against foreigners on subsequent attacks.
3. The term 'media agenda-setting' refers to the question of what factors put an issue on the media agenda.
4. Ideally, one would include the parliamentary agenda to control for its influence on media coverage (e.g. Shah et al., 1999). One could even argue that the parliamentary agenda consists of all political deliberative events. For a discussion of the (limited) effect of the parliamentary agenda on the media agenda for immigration and integration in the Netherlands in a slightly different time period, see Vliegthart and Roggeband (2007).
5. Theoretically, one could even think of the publication of data on immigration and asylum seekers receiving considerable media attention and becoming some kind of event in itself. From a preliminary analysis of our data, we do not find much evidence for this: there is little coverage on the exact immigration and asylum figures.

6. The specific search string used to obtain newspaper articles on immigration issues was: *discrim!* OR (*haat w/5 aanzet*) OR *inburgering!* OR (*scholing* or (*cursus!* OR *les!* OR *onderwijs*) *w/10* (*immi!* OR *alloch!* OR *asiel!* OR *buiten!*)) OR *taalcur!* OR *taalles!* OR *taalonderw!* OR *gezinsherenig!* OR *schijnhuw!* OR *nephuw!* OR *uithuw!* OR *immig!* OR *alloch!* OR *multicult!* OR (*verpaup!* AND (*buurt!* or *wijk!*)) OR *moslim!* OR *islam!* OR *asiel!* OR *uitgeproc!* OR *verblijfs!* OR (*grondwet w/10 artikel 7*) OR *importbruid* OR (*bruid!* AND *buitenland*) OR (*inkomenseis w/20 trouw!*) OR *pluriform!* OR *asielzoeker!* OR *vluchteling!* OR (*generaal pardon*) OR *pardonregeling*.
7. Brosius and Eps do use the media content to select crucial key events, but since their research question is different, this is less problematic, though they acknowledge that 'It is difficult, however, to identify – aside from coverage – objective criteria for classifying such events as key-events' (Brosius and Eps, 1995: 407).
8. The interpretation of the effect of a dummy variable on a differenced series differs from the effect on the original series. Take for example the original key event dummies indicating a permanent effect (resembling 0,0,1,1,1). A significant positive impact on the differenced series would lead to the conclusion that after the occurrence of the event there is a positive change at *any* time point after the event has taken place. Translated to the original series this would mean an upward trend leading ultimately to infinity. If the dummy has a positive effect on the original series, this would lead to a one-time increase, after which the series remains at this higher level, but does not increase further. The same result is reached when indeed using the differenced dummy series (0,0,1,0,0) on the differenced dependent variable: it leads to a one-time positive change score. For the original series, this means a one-time increase after which it remains at the same level.
9. Theoretically, one could also think of an effect that occurs abruptly and increases continuously. Such effects, however, are not likely to occur often in social sciences.
10. The calculation in this case is as follows: percentage change = $(e^{.77-1}) \cdot 100$ (Clarke et al., 1990: 75).

References

- Aarts, K. and H.A. Semetko (2003) 'The Divided Electorate: Media Use and Political Involvement', *Journal of Politics* 65(2): 759–84.
- Bakker, P. and O. Scholten (2003) *De Communicatiekaart van Nederland*. Alphen aan de Rijn: Kluwer.
- Behr, R.L. and S. Iyengar (1985) 'Television News, Real-World Cues, and Changes in the Public Agenda', *Public Opinion Quarterly* 49(4): 38–57.
- Bennett, W.L. and R.G. Lawrence (1995) 'News Icons and the Mainstreaming of Social Change', *Journal of Communication* 45(3): 20–39.
- Bolkestein, F. (1991) 'On the Collapse of the Soviet Union', speech at the Liberal International Conference, Luzern, 6 September.

- Brosius, H.-B. and P. Eps (1995) 'Prototyping through Key-Events: News Selection in the Case of Violence against Aliens and Asylum Seekers in Germany', *European Journal of Communication* 10(2): 391–412.
- Brosius, H.-B. and F. Esser (1995) *Eskalation durch Berichterstattung? Massenmedien und Fremdenfeindliche Gewalt*. Opladen: Westdeutscher Verlag.
- Brosius, H.-B. and H.M. Kepplinger (1990) 'The Agenda-Setting Function of Television News: Static and Dynamic Views', *Communication Research* 17(1): 183–211.
- Clarke, H.D., W. Mishler and P. Whiteley (1990) 'Recapturing the Falklands: Models of Conservative Popularity, 1979–83', *British Journal of Political Science* 20: 63–81.
- Clarke, H.D., J. Rapkin and M.C. Stewart (1994) 'A President Out of Work: A Note on the Political Economy of Presidential Approval in the Bush Years', *British Journal of Political Science* 24: 535–61.
- Daschmann, G. and H.-B. Brosius (1999) 'Can a Single Incident Create an Issue? Exemplars in German Television Shows', *Journalism and Mass Communication Quarterly* 76(2): 35–51.
- Dearing, J.W. and E.M. Rogers (1996) *Agenda-Setting*. London: Sage.
- De Volkskrant* (2002) 'Fortuyn: Grens dicht voor Islamiet', 8 February: 1.
- Doornik, J.A. and H. Hanssen (1994) *An Omnibus Test for Univariate and Multivariate Normality*. Oxford: Nuffield College.
- Enders, W. (2004) *Applied Econometric Time-Series*, 2nd edn. New York: Wiley.
- Engle, E. (1982) 'Autoregressive Conditional Heteroscedasticity with Estimates of the Variance of United Kingdom Inflation', *Econometrica* 50(4): 987–1008.
- Galtung, J. and M.H. Ruge (1965) 'The Structure of Foreign News', *Journal of Peace Research* 2(4): 64–91.
- Gans, H. (1980) *Deciding What's News*. New York: Vintage Books.
- Goidel, R.K. and R.E. Langley (1995) 'Media Coverage of the Economy and Aggregate Economic Evaluations: Uncovering Evidence of Indirect Media Effects', *Political Research Quarterly* 48(1): 313–28.
- Harcup, T. and D. O'Neill (2001) 'What is News? Galtung and Ruge Revisited', *Journalism Studies* 2(2): 261–80.
- Herbert, J. (2000) *Practicing Global Journalism: Exploring Reporting Issues Worldwide*. Oxford: Focal Press.
- Hetherington, A. (1985) *News, Newspapers and Television*. London: Macmillan.
- Huckins, K. (1999) 'Interest-Group Influence on the Media Agenda: A Case Study', *Journalism and Mass Communication Quarterly* 76(1): 76–86.
- Hutcheson, J.S., D. Domke, A. Billeaudeau and P.A. Garland (2004) 'US National Identity, Political Elites, and a Patriotic Press Following September 11', *Political Communication* 21(4): 27–50.
- Kepplinger, H.M. (1992) *Ereignismanagement. Wirklichkeit und Massamedien*. Zurich: Edition Interform.
- Kepplinger, H.M. and J. Habermeier (1995) 'The Impact of Key-Events on the Presentation of Reality', *European Journal of Communication* 10(2): 371–90.

- Kleinnijenhuis, J. (2003) 'Het Publiek Volgt Media die de Politiek Volgen', pp. 151–212 in Raad Voor Maatschappelijke Ontwikkeling (ed.) *Medialogica*. The Hague: SDU Uitgevers.
- Kleinnijenhuis, J. and E.M. Rietberg (1995) 'Parties, Media, the Public and the Economy: Patterns of Societal Agenda-Setting', *European Journal of Political Research* 28(1): 95–118.
- Kleinnijenhuis, J., D. Oegema, J.A. de Ridder and H. Bos (1995) *De Democratie op Drift*. Amsterdam: VU-uitgeverij.
- Kleinnijenhuis, J., D. Oegema, J.A. de Ridder, A.M.J. van Hoof and R. Vliegenthart (2003) *De Puinhopen in het Nieuws*. Alphen aan de Rijn: Kluwer.
- Koopmans, R. (2002) 'Zachte Heelmeesters. Een Vergelijking van de Resultaten van het Nederlandse en Duitse Integratiebeleid en wat de WRR Daaruit niet Concludeert', *Migrantenstudies* 18(2): 87–92.
- Koopmans, R. (2004) 'Movements and Media: Selection Processes and Evolutionary Dynamics in the Public Sphere', *Theory and Society* 33(3): 367–93.
- Lubbers, M., P. Scheepers and F. Wester (1998) 'Ethnic Minorities in Dutch Newspapers 1990–95: Patterns of Criminalization and Problematicization', *Gazette* 60(2): 415–31.
- McQuail, D. (1992) *Media Performance: Mass Communication and the Public Interest*. Newbury Park, CA: Sage.
- Manning, C.D. and H. Schütze (2002) *Foundations of Statistical Natural Language Processing*, 2nd edn. Cambridge, MA: MIT Press.
- Mosley, P. (1984) 'Popularity Function and the Role of the Media: A Pilot Study of the Popular Press', *British Journal of Political Science* 14(4): 117–33.
- Nacos, B.L. and O. Torres-Reyna (2003) 'Framing Muslim-Americans Before and After 9/11', pp. 133–58 in P. Norris, M. Just and M. Kern (eds) *Framing Terrorism*. London: Routledge.
- Noelle-Neumann, E. and R. Mathes (1987) 'The "Event as Event" and the "Event as News": The Significance of "Consonance" for Media Effects Research', *European Journal of Communication* 2(4): 391–414.
- Poole, E. and J.E. Richardson (eds) (2006) *Muslims and the News Media*. London: I.B. Tauris.
- Rosengren, K.E. (1974) 'International News: Methods, Data and Theory', *Journal of Peace Research* 11(2): 145–56.
- Sanders, D., D. Marsh, and H. Ward (1993) 'The Electoral Impact of Press Coverage of the British Economy 1979–1987', *British Journal of Political Science* 23(1): 175–210.
- Schulz, W. (1976) *Die Konstruktion von Realität in den Nachrichtenmedien. Analyse der Aktuellen Berichterstattung*. Freiburg and Munich: Verlag Karl Alber.
- Semetko, H.A. and P. Valkenburg (1999) 'Framing European Politics: A Content Analysis of Press and Television News', *Journal of Communication* 50(1): 93–109.
- Shah, D.V., M.D. Watts, D. Domke, D.P. Fan and M. Fibison (1999) 'News Coverage, Economic Cues, and the Public's Presidential Preferences, 1984–1996', *Journal of Politics* 61(4): 914–43.

- Shoemaker, P.J. and S.D. Reese (1996) *Mediating the Message: Theories of Influences on Mass Media Content*. New York: Longman.
- Smith, T.J. (1988) *The Vanishing Economy: Television Coverage of Economic Affairs, 1982–1987*. Washington, DC: Media Institute.
- Sniderman, P. and L. Hagendoorn (2007) *When Ways of Life Collide: Multiculturalism and its Discontents in the Netherlands*. Princeton, NJ: Princeton University Press.
- Van der Brug, W. (2004) 'Issue Ownership and Party Choice', *Electoral Studies* 23(1): 209–33.
- Van Holsteyn, J. and C. Mudde (2000) *Extreem-rechts in Nederland*. The Hague: SDU.
- Vasterman, P.L.M. (2005) 'Media-Hype: Self-Reinforcing News Waves, Journalistic Standards and the Construction of Social Problems', *European Journal of Communication* 20(4): 508–30.
- Verberk, G., P. Scheepers and A. Felling (2002) 'Attitudes and Behavioral Intentions towards Ethnic Minorities: An Empirical Test of Several Theoretical Explanations for the Dutch Case', *Journal of Ethnic and Migration Studies* 28(2): 197–219.
- Vliegthart, R. and C. Roggeband (2007) 'Framing Immigration and Integration: Relationships between Press and Parliament in the Netherlands, 1995–2004', *International Communication Gazette* 69(3): 295–319.
- Walgrave, S. and P. van Aelst (2006) 'The Contingency of the Mass Media's Political Agenda-Setting Power: Towards a Preliminary Theory', *Journal of Communication* 56(1): 88–109.
- WRR (Dutch Scientific Council for Government Policy) (1989) *Allochtonenbeleid*. The Hague: SDU.
- Wu, H.D., R.L. Stevenson, H. Chen and Z. Nuray Güner (2002) 'The Conditioned Impact of Recession News: A Time-Series Analysis of Economic Communication in the United States, 1986–1997', *International Journal of Public Opinion Research* 14(4): 19–36.
- Zillmann, D. and H.-B. Brosius (2000) *Exemplification in Communication: The Influence of Case Reports on the Perception of Issues*. Mahwah, NJ: Lawrence Erlbaum.
- Zuwanderungskommission (2001) *Zuwanderung gestalten, Integration fördern. Bericht der Unabhängigen Kommission 'Zuwanderung'*. Berlin: Bundesministerium des Innern.